



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/564,733

01/17/2006

Yuichiro Ogawa

Q92702

9813

23373 7590 03/28/2008  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

MAKI, STEVEN D

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

03/28/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,733	<b>Applicant(s)</b> OGAWA, YUICHIRO	
	<b>Examiner</b> Steven D. Maki	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>011706</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

Art Unit: 1791

- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 2-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 describes "first tread rubber portion of the tread rubber separated by the electrically conductive [band]". What is separated from what? Is the first tread rubber portion separated from the second tread rubber portion? Should "the electrically conductive" be --the electrically conductive band--?

In claim 6, there is no antecedent basis for "the electrically conductive bands".

Claims 7-10 are incomplete and therefore indefinite. The step(s) recited in claims 7-10 fail to produce the tire of claim 1. For example, there is no mention of the belt in claims 7-10.

- 3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1791

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Japan 525

**5) Claims 1, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 525 (JP 2001-047525).**

See figures, abstract and machine translation. As to claims 1 and 8, the claimed belt reads on belt 13; the claimed low conductive continuous rubber ribbon circumferentially wound plural times reads on the cap 4C which is formed by winding a sheet shaped member 4 plural times; and the claimed high conductive thin annular rubber sheet reads on the thin high conductivity rubber composition layer E. The plural layers of cap 4C are best seen in figure 2. The term "ribbon" fails to require a width different from the width of the sheet shaped member 4. See MPEP 2113 (product by process claims). With respect to "two layers" (claim 6), note cap 4C and base 4B.

Japan 614

**6) Claims 2 and 4-7 are rejected under 35 U.S.C. 102(a) as being anticipated by Japan 614 (JP 2003-326614).**

See figures, abstract and machine translation. The ribbon 10 is electrically connected to both ends and the multiple turns causes the ribbon 10 to extend over the claimed widthwise region. Claim 7 is not limited to only one wound turn.

Japan 713

**7) Claims 2 and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 713 (JP 11-129713).**

See figures 3, 4, abstract and machine translation. Japan 713's tire (size 195/65R14) inherently has the claimed belt.

Koyama et al

**8) Claims 1-3, 5 and 7-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Koyama et al (US 2002/0007893).**

Koyama et al discloses a method for producing a tread comprising providing tire material 4 on a rotating support 3; winding a first portion 8a of low electrically conductive rubber on the tire material 4; winding high electrically conductive rubber ribbon 10 to form an electrically conductive layer 9; and winding a second portion 8b of low electrically conductive rubber. The ribbon 10 may be wound only once such that it is inclined (figure 3b, paragraph 46). The low electrically conductive rubber may be formed by winding a ribbon as an alternative to winding an integral shaped body (paragraph 53). The outer surface of the tire material may be defined by a belt cord coating layer 6. The tread may have a cap base structure (figure 4).

The claimed tire and method are anticipated by Koyama et al's tire and method of making a tire. In any event: It would have been obvious to form a tire by spirally winding a ribbon of low electrically conductive rubber on a tire material to form a first tread portion, then winding a thin ribbon of high electrically conductive rubber only once on the first tread portion to form an electrically conductive rubber layer; and then winding a ribbon of low electrically conductive rubber on the thin high electrically conductive ribbon and the tire material such that the conductive layer is inclined at an

Art Unit: 1791

angle with respect to the equatorial plane as shown in figure 3b since (1) Koyama et al teaches that the high electrically conductive ribbon 10 may be wound only once such that it is inclined (figure 3b, paragraph 46) and (2) Koyama et al teaches that the low electrically conductive rubber may be formed by winding a ribbon as an alternative to winding an integral shaped body (paragraph 53). With respect to the belt, Koyama et al teaches that 6 may be a belt cord coating layer made of high electrically conductive rubber. In claim 5, "tread layer is arranged as at least an inner most layer" reads on a single layer tread.

**9) Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al (US 2002/0007893) in view of Japan 713 (JP 11-129713).**

As to claim 4, it would have been obvious to one of ordinary skill in the art to incline the high electrically conductive band (figure 3b) at an angle of 45-75 degrees with respect to the equatorial plane in view of Japan 713's teaching to incline an high electrically conductive rubber member extending through a low electrically conductive rubber tire tread at a relatively large angle (illustrated angle of 70 degrees in figure 4).

As to claim 5, it would have been obvious to form a two layer tread having an electrically conductive band extending there through using Koyama et al's process since (1) Koyama et al, directed to an anti-static tire, teaches that the tread may have two layers (figure 4) and (2) Japan 713, also directed to an anti-static tire, teaches extending an electrically conductive layer through both layers of a two layer tread (figure 3).

**10) Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al (US 2002/0007893) in view of Japan 713 (JP 11-129713), Calvar et al 233 (US 6,951,233) and Calvar et al 693 (US 6,834,693).**

As to claim 6, it would have been obvious to form a two layer tread having an electrically conductive band extending there through using Koyama et al's process since (1) Koyama et al, directed to an anti-static tire, teaches that the tread may have two layers (figure 4) and (2) Japan 713, also directed to an anti-static tire, teaches extending an electrically conductive layer through both layers of a two layer tread (figure 3). Furthermore, it would have been obvious to form two electrically conductive bands instead of one since Calvar et al 233 and Calvar et al 693 suggest separately forming the cap and base (the two layers) in which each of these layers has an electrically conductive rubber member extending there through.

**11) Claims 4, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al (US 2002/0007893) in view of Japan 614 (JP 2003-326614).**

As to Japan 614, Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

As to claim 4, it would have been obvious to one of ordinary skill in the art to incline the high electrically conductive band (figure 3b) at an angle of 45-75 degrees with respect to the equatorial plane in view of Japan 614's teaching to incline an high electrically conductive rubber member extending through a low electrically conductive rubber tire tread at a relatively large angle (see figures 2-6).

As to claims 5 and 6, it would have been obvious to one of ordinary skill in the art to form two layers and two electrically conductive bands as claimed using Koyama et al's process since (1) Koyama et al, directed to an anti-static tire, teaches that the tread may have two layers (figure 4) and (2) Japan 614, also directed to an anti-static tire, teaches forming two electrically conductive members when forming a two layer tread (figure 3).

**12) Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al (US 2002/0007893) in view of Europe 397 (EP 1201397).**

As to claim 10, it would have been obvious to one of ordinary skill in the art to use a calendar to form the conductive rubber ribbon 10 since Europe 397, also directed to strip winding a tire tread, suggests using a calendar to form a rubber tape for strip winding so that the desired thickness can be obtained.

#### Remarks

13) The remaining references are of interest.

14) No claim is allowed.

15) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/  
Primary Examiner, Art Unit 1791

Steven D. Maki  
March 26, 2008